

Texas Tech University Health Sciences Center El Paso

Obstetrics and Gynecology

Protocol #2

Magnesium Sulfate for Neuroprotection

BACKGROUND:

In 2003 a multicenter placebo-controlled study of 1255 infants reported that infants exposed to magnesium sulfate demonstrated less frequent 'substantial gross motor dysfunction' or death or both.

PROTOCOL

- i. Magnesium sulfate for fetal neuroprotection may be given from 23w0d to 31w6d* when there is an imminent risk of preterm birth.
 - a. Imminent risk of delivery is defined as:
 - i. 4cm dilated in active labor
 - ii. Planned preterm birth for fetal or maternal indications
- ii. The dosage of magnesium sulfate should be 4g iv load over 30 minutes followed by 1 g/hr maintenance for 24 hours
- iii. For planned preterm birth magnesium should be started within 4 hours of delivery
- iv. Magnesium for neuroprotection should be discontinued after 24 hours.
- v. Consider Indocin if tocolysis is needed during or after 24 hours
- vi. Emergent Delivery should not be delayed to administer magnesium
- vii. Repeat doses of magnesium sulfate for neuroprotection are controversial. The number of repeat doses and the time interval between doses has not been studied.

*31w6d was the upper limit studied. There is no evidence to support or refute the use of Magnesium for neuroprotection in later gestations. Some groups have extended this to 33w6d.

REFERENCES

ACOG Committee Opinion 455 March 2010 reaffirmed 2015